

What Is Claimed Is:

1. A monoclonal antibody that immunoreacts with lipopolysaccharide (LPS) binding protein (LBP) but does not substantially inhibit LBP binding to LPS.

5 2. The monoclonal antibody of claim 1 wherein said LBP is human LBP.

3. The monoclonal antibody of claim 1 wherein said antibody has a binding specificity for the epitope defined by Mab 1E8, Mab 2B5, Mab 4D7, Mab 5C5, Mab 6B6, Mab 8C9, Mab 8F5, Mab 18G4, or Mab 24B7.

10 4. The monoclonal antibody of claim 1 wherein said antibody is Mab 1E8, Mab 2B5, Mab 4D7, Mab 5C5, Mab 6B6, Mab 8C9, Mab 8F5, Mab 18G4, or Mab 24B7.

15 5. The monoclonal antibody of claim 1 wherein said antibody inhibits LBP-mediated binding of LPS to CD14.

20 6. The monoclonal antibody of claim 5 wherein said antibody has a binding specificity for the epitope defined by Mab 1E8, Mab 2B5, Mab 4D7, Mab 5C5, Mab 6B6, Mab 18G4, or Mab 24B7.

25 7. The monoclonal antibody of claim 5 wherein said antibody inhibits LBP-mediated LPS-dependent activation of myeloid cells.

8. The monoclonal antibody of claim 5 wherein said antibody inhibits LBP-mediated LPS-dependent secretion of tumor necrosis factor from myeloid cells.

30 9. The monoclonal antibody of claim 8 wherein said antibody has a binding specificity for the epitope defined by Mab 2B5.

10. The monoclonal antibody of claim 9 produced by a hybridoma cell line having ATCC accession number HB \_\_\_\_.

11. A hybridoma cell line that produces a monoclonal antibody that immunoreacts with lipopolysaccharide (LPS) binding protein (LBP) but does not substantially inhibit LBP binding to LPS.

5 12. The hybridoma cell line of claim 11 wherein said antibody has a binding specificity for the epitope defined by Mab 1E8, Mab 2B5, Mab 4D7, Mab 5C5, Mab 6B6, Mab 8C9, Mab 8F5, Mab 18G4, or Mab 24B7.

10 13. The hybridoma cell line of claim 11 wherein said antibody is Mab 1E8, Mab 2B5, Mab 4D7, Mab 5C5, Mab 6B6, Mab 8C9, Mab 8F5, Mab 18G4, or Mab 24B7.

15 14. A method of detecting lipopolysaccharide (LPS) binding protein (LBP) comprising contacting a sample suspected of containing LBP with a diagnostically effective amount of the monoclonal antibody of claim 1 and determining whether the monoclonal antibody immunoreacts with the sample.

20 15. The method of claim 14, wherein the detecting is in vitro.

25 16. The method of claim 15, wherein the monoclonal antibody is detectably labelled with a label selected from the group consisting of a radioisotope, a fluorescent compound, a colloidal metal, a chemiluminescent compound, a bioluminescent compound, and an enzyme.

17. The method of claim 15, wherein the monoclonal antibody is bound to a solid phase.

18. The method of claim 14, wherein the detecting is in vivo.

30 19. The method of claim 16, wherein the monoclonal antibody is detectably labelled with a label selected from the group consisting of a radioisotope and a paramagnetic label.

20. A kit useful for the detection of lipopolysaccharide (LPS) binding protein (LBP) in a source suspected of containing LBP, the kit comprising carrier means being compartmentalized to receive in close confinement therein one or more containers comprising a container containing the monoclonal antibody of claim 1, and biologically active fragments thereof.

21. A pharmaceutical composition comprising at least one dose of an immunotherapeutically effective amount of the monoclonal antibody of claim 7 in a pharmacological carrier.

22. The pharmaceutical composition of claim 21 wherein said composition contains two or more different monoclonal antibodies.

23. A method of inhibiting the binding of LPS to CD14 present on myeloid cells which comprises contacting said cells with the monoclonal antibody of claim 5 or a biologically active fragment thereof.

24. A method of inhibiting LPS-dependent CD14-mediated activation of a cell expressing CD14, which comprises contacting the cell with an effective amount of the monoclonal antibody of claim 7 or a biologically active fragment thereof.

25. The method of claim 24, wherein the method is practiced prophylactically.

26. The method of claim 24 wherein said cell expressing CD14 is present in a host mammal, and said contacting is conducted in vivo.

27. The method of claim 26, wherein the contacting is by parenteral administration.

28. The method of claim 27, wherein the parenteral administration is by subcutaneous,

intramuscular, intraperitoneal, intracavity,  
transdermal, or intravenous injection.

29. The method of claim 27, wherein the  
parenteral administration is by gradual perfusion.

5 30. The method of claim 29, wherein the gradual  
perfusion is by intravenous or peristaltic means.

31. The method of claim 26, wherein the  
effective amount is from about 0.1 mg/kg to about 300  
mg/kg.

10 32. The method of claim 24 wherein said  
LPS-dependent CD14-mediated activation is associated  
with sepsis.

33. The method of claim 32 wherein said sepsis  
is caused by a gram-negative bacterial infection.

15 34. The method of claim 33 wherein said method  
further comprises substantially simultaneously  
administering to said patient a bactericidal amount of  
an antibiotic.

20 35. The method of claim 34 wherein said  
antibiotic is an anti-bacterial agent effective  
against gram-negative bacteria.